longitudinal axis, and wherein the other of the first annular and second members is nonrotatable about the longitudinal axis; and

c) means for flexing the first annular member into at least two spaced-apart points of contact with the second member and for sequentially flexing the first annular member to rotate the at least two points of contact about the longitudinal axis which rotates the rotatable one of the first annular and second members about the longitudinal axis, wherein the flexing means is nonrotatable about the longitudinal axis and wherein each part of the flexing means which at any time contacts the first annular member is attached at all times to the first annular member.

2. (Twice Amended) A harmonic motor comprising:

a) a first annular member having a longitudinal axis, wherein the first annular member is nonrotatable about the longitudinal axis and lies in a plane perpendicular to the longitudinal axis, and wherein the first annular member is flexible along a direction which lies in the plane;

b) a second annular member substantially coaxially aligned with the first annular member and lying in the plane, wherein the second annular member is rotatable about the longitudinal axis; and

c) means for flexing the first annular member into at least two spaced-apart points of contact with the second annular member and for sequentially flexing the first annular member to rotate the at least two points of contact about the longitudinal axis which rotates the second annular member about the longitudinal axis, wherein the flexing means is nonrotatable about the longitudinal axis and wherein each part of the flexing means which at any time contacts the first annular member is attached at all times to the first annular member.

13. (Twice Amended) A harmonic motor comprising:

a) a harmonic-gear-train outer gear having a longitudinal axis;

b) a harmonic-gear-train flex-spline gear having an inner circumference and disposed inside the outer gear, wherein one of the outer and flex-spline gears is rotatable about the

longitudinal axis, and wherein the other of the outer and flex-spline gears is nonrotatable about the longitudinal axis; and

c) means for flexing the flex-spline gear into two substantially diametrically opposite points of contact with the outer gear and for sequentially flexing the flex-spline gear to rotate the at least two points of contact about the longitudinal axis which rotates the rotatable one of the outer and flex-spline gears about the longitudinal axis, wherein the flexing means is nonrotatable about the longitudinal axis and wherein each part of the flexing means which at any time contacts the flex-spline gear is attached at all times to the flex-spline gear.

14. (Twice Amended) A harmonic motor comprising:

a) a harmonic-gear-train outer gear rotatable about a longitudinal axis;

b) a harmonic-gear-train flex-spline gear having an inner circumference, disposed inside the outer gear, and nonrotatable about the longitudinal axis; and

c) means for flexing the flex-spline gear into two substantially diametrically opposite points of contact with the outer gear and for sequentially flexing the flex-spline gear to rotate the at least two points of contact about the longitudinal axis which rotates the outer gear about the longitudinal axis in a direction opposite the direction of rotation of the at least two points of contact, wherein the flexing means is nonrotatable about the longitudinal axis and wherein each part of the flexing means which at any time contacts the flex-spline gear is attached at all times to the flex-spline gear.

15. (Amended) A harmonic motor comprising:

a) a harmonic-gear-train outer gear rotatable about a longitudinal axis;

b) a harmonic-gear-train flex-spline gear having an inner circumference, disposed inside the outer gear, and nonrotatable about the longitudinal axis;

c) an array of spaced apart magnets disposed on the inner circumference of the flex-spline gear, wherein each of the magnets which at any time is disposed on the inner circumference of the flex-spline gear is disposed at all times on the inner circumference of the flex-spline gear, and wherein all magnets which at any time are disposed on the inner circumference of the flex-spline gear are spaced apart from each other; and

d) a nonrotatable magnetic stator disposed inside and spaced apart from the array, wherein the magnetic stator is operable to magnetically repel and attract substantially diametrically opposite ones of the magnets of the array in a circumferentially sequential manner to create at least two substantially diametrically opposite rotating points of contact of the flex-spline gear with the outer gear to rotate the outer gear about the longitudinal axis.

16. (Amended) A harmonic motor comprising:

a) a harmonic-gear-train outer gear rotatable about a longitudinal axis;

b) a harmonic-gear-train flex-spline gear having an inner circumference, disposed inside the outer gear, and nonrotatable about the longitudinal axis; and

c) an array of spaced apart, piezoelectric members disposed on the inner circumference of the flex-spline gear and operable to radially expand and contract substantially diametrically opposite portions of the flex-spline gear in a circumferentially sequential manner to create at least two substantially diametrically opposite rotating points of contact of the flex-spline gear with the outer gear to rotate the outer gear about the longitudinal axis, wherein each of the piezoelectric members which at any time is disposed on the inner circumference of the flex-spline gear is disposed at all times on the inner circumference of the flex-spline gear, and wherein all piezoelectric members which at any time are disposed on the inner circumference of the flex-spline gear are spaced apart from each other.

17. (Amended) A harmonic motor comprising:

a) a harmonic-gear-train outer gear rotatable about a longitudinal axis;

b) a harmonic-gear-train flex-spline gear having an inner circumference, disposed inside the outer gear, and nonrotatable about the longitudinal axis; and

c) an array of spaced apart, magneto-restrictive members disposed on the inner circumference of the flex-spline gear and operable to radially expand and contract substantially diametrically opposite portions of the flex-spline gear in a circumferentially sequential manner to create at least two substantially diametrically opposite rotating points of contact of the flex-spline gear with the outer gear to rotate the outer gear about the

longitudinal axis, wherein each of the magneto-restrictive members which at any time is disposed on the inner circumference of the flex-spline gear is disposed at all times on the inner circumference of the flex-spline gear, and wherein all magneto-restrictive members which at any time are disposed on the inner circumference of the flex-spline gear are spaced apart from each other.

REMARKS

Reexamination and reconsideration of the application as amended are requested. Support for the amended claims is found, for example, from the figures, and from the operation of the harmonic motor in the specification.

The examiner's rejection of claims 1-6, 8, 11, 13, 14 and 16 as being "anticipated", under 35 U.S.C. 102, is respectfully traversed. The examiner rejects these claims as being unpatentable over Japan. Claims 3-6, 8 and 11 depend directly or indirectly from claim 2.

Claims 1 and 2 (and therefore also claims 3-6, 8 and 11) now require each part of the flexing means 28 or 46 which at any time contacts the first annular member 12 or 42 be attached at all times to the first annular member 12 or 42. Claims 13 and 14 now require each part of the flexing means 28 which at any time contacts the flex-spline gear 31 be attached at all times to the flex-spline gear 31. Claim 16 now requires each of the piezoelectric members 48 which at any time is disposed on the inner circumference of the flex-spline gear be disposed at all times on the inner circumference of the flex-spline gear.

Japan does not teach, suggest or describe this. Each of the piezoelectric elements 11 of Japan is not at all times attached to the flake spline 20. The Examiner had argued with respect to previous claim language that "the piezo elements in Japan when contacting the insides of the flex spline constitutes 'attached at least in part' ...". It is pointed out that the piezo elements in Japan do not at all times contact the insides of the flex spline. Applicant's piezoelectric embodiment tangentially expands and contracts the appropriate piezoelectric members 48 to cause the flexible first annular member 42 to change between an unflexed circular shape and a flexed elliptical shape. This uses fewer parts than Japan which needs a